

**APPLICATION: Pipeline Custody Transfer of Crude Oil**



**PROBLEM:**

Precision volumetric measurement of varying gravity crude oil (13, 20 and 25° API) over wide range of flowrates (500 through 3400 bph). Existing sliding vane PD meter had maintenance problems along with repeatability problems. Determination of on-line density (°API) also essential for monitoring crude quality.

**EQUIPMENT:**

Micro Motion D600 (6" meter) with RFT 9739 transmitter installed in flag position

**BENEFITS:**

- Reduced cost of ownership and maintenance. Reliability, based on the actual proving reports, was improved significantly.
- Capable of handling a wide range of crude oil gravities without sacrificing accuracy and repeatability.
- Reduced proving requirements (with coriolis meters) offer better accuracy over a wide range of gravity. The overall reduction in proving time was approximately 50%.
- On-line monitoring of density (°API) and temperature eliminates tedious sampling process and requirement for separate slip-stream densitometers.
- Higher flowrate rangeability with consistent repeatability and accuracy (Coriolis meters provided high accuracy over desired range of 20:1).
- Lower initial cost for most sizes (by approximately 15%) compared to conventional sliding vane meters.

**CUSTOMER:** Large oil production company near Bakersfield California - USA

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